

WHAT IS CLAIMED IS

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1. A developer, comprising:

a base toner containing at least a binding  
resin and a coloring agent; and  
inorganic fine particles;

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wherein the base toner satisfies  $105 \leq SF-1 \leq$

130 and  $120 \leq SF-2 \leq 180$ ,

wherein  $SF-1 = ((\text{absolute maximum length of a  
particle of the base toner})^2 / \text{area of the particle of the  
base toner}) \times (\pi/4) \times 100$ ,

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wherein  $SF-2 = (\text{peripheral length of the  
particle of the base toner})^2 / (\text{area of the base toner}) \times  
(1/4\pi) \times 100$ ,

wherein the inorganic fine particles have an  
average particle diameter that ranges between 30nm to

20 160 nm.

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2. The developer as claim in claim 1, wherein

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Related Pending Application  
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the inorganic fine particles are formed as silica.

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3. The developer as claimed in claim 1,  
wherein the inorganic fine particles are applied with a  
sol-gel technique and are thereby formed as spherical  
shaped hydrophobic silica fine particles.

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4. The developer as claimed in claim 1,  
15 wherein the developer contains further inorganic fine  
particles having an average particle diameter which is  
smaller than the inorganic fine particles.

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5. The developer as claimed in claim 1,  
wherein the developer is combined with a magnetic  
particle to function as a carrier.

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6. An image forming apparatus, comprising:
- 5 a developer for developing an electrostatic latent image formed on an electrostatic latent image carrier body to form a toner image;
- a transfer unit for transferring the toner image to a transfer medium;
- 10 wherein the developer includes a further developer and a carrier,
- wherein the further developer has a base toner containing at least a binding resin and a coloring agent, and inorganic fine particles,
- 15 wherein the carrier has a magnetic particle,
- wherein the base toner satisfies  $105 \leq SF-1 \leq 130$  and  $120 \leq SF-2 \leq 180$ ,
- wherein  $SF-1 = ((\text{absolute maximum length of a particle of the base toner})^2 / \text{area of the particle of the base toner}) \times (\pi / 4) \times 100$ ,
- 20 wherein  $SF-2 = (\text{peripheral length of the particle of the base toner})^2 / (\text{area of the base toner}) \times (1/4 \pi) \times 100$ ,
- wherein the inorganic fine particles have an
- 25 average particle diameter that ranges between 30nm to

160 nm.

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7. The image forming apparatus as claimed in claim 6, wherein the inorganic fine particles are formed as silica.

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8. The image forming apparatus as claimed in claim 6, wherein the inorganic fine particles are applied with a sol-gel technique and are thereby formed as spherical shaped hydrophobic silica fine particles.

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9. The image forming apparatus as claimed in claim 6, wherein the developer contains further inorganic fine particles having an average particle diameter which is smaller than the inorganic fine particles.

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5           10. The image forming apparatus as claimed in  
claim 6, wherein the developer is combined with a  
magnetic particle to function as a carrier.

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11. The image forming apparatus as claimed in  
claim 6, wherein the developer includes a plurality of  
colors.

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12. A process cartridge, comprising:  
20           a charge unit charging a photoconductor;  
            an exposure unit exposing light to the  
photoconductor to form an image on the photoconductor;  
            a development unit developing the image formed  
on the photoconductor with a developer;  
25           a transfer unit transferring the image formed

on the photoconductor to a transfer medium;

a cleaning unit cleaning the transfer unit;

wherein the developer includes a further  
developer and a carrier,

5            wherein the further developer has a base toner  
containing at least a binding resin and a coloring agent,  
and inorganic fine particles,

wherein the carrier has a magnetic particle,

wherein the base toner satisfies of  $105 \leq \text{SF-1}$   
10  $\leq 130$  and  $120 \leq \text{SF-2} \leq 180$ ,

wherein  $\text{SF-1} = ((\text{absolute maximum length of a}$   
particle of the base toner)<sup>2</sup>/area of the particle of the  
base toner)  $\times (\pi/4) \times 100$ ,

wherein  $\text{SF-2} = (\text{peripheral length of the}$   
15 particle of the base toner)<sup>2</sup>/(area of the base toner)  $\times$   
 $(1/4\pi) \times 100$ ,

wherein the inorganic fine particle has an  
average particle diameter that ranges between 30nm to  
160 nm.

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13. The process cartridge as claimed in claim  
25 12, wherein the inorganic fine particles are formed as

silica.

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14. The process cartridge as claimed in claim 12, wherein the inorganic fine particles are applied with a sol-gel technique and are thereby formed as spherical shaped hydrophobic silica fine particles.

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15. The process cartridge as claimed in claim 12, wherein the developer contains further inorganic fine particles having an average particle diameter which is smaller than the inorganic fine particles.

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16. The process cartridge as claim in claim 12, wherein the developer is combined with a magnetic particle to function as a carrier.

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17. A image forming method, comprising the  
5 steps of:  
charging a photoconductor;  
exposing light to the photoconductor to form  
an image on the photoconductor;  
developing the image formed on the  
10 photoconductor with a developer;  
transferring the image formed on the  
photoconductor to a transfer medium;  
wherein the developer includes a further  
developer and a carrier,  
15 wherein the further developer has a base toner  
containing at least a binding resin and a coloring agent,  
and inorganic fine particles,  
wherein the carrier has a magnetic particle,  
wherein the base toner satisfies  $105 \leq SF-1 \leq$   
20  $130$  and  $120 \leq SF-2 \leq 180$ ,  
wherein  $SF-1 = ((\text{absolute maximum length of a}$   
 $\text{particle of the base toner})^2 / \text{area of the particle of the}$   
 $\text{base toner})^2 \times (\pi / 4) \times 100$ ),  
wherein  $SF-2 = (\text{peripheral length of the}$   
25  $\text{particle of the base toner} / \text{area of the base toner}) \times (1/4$



$\pi) \times 100,$

wherein the inorganic fine particles have an average particle diameter that ranges between 30nm to 160 nm.

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18. The image forming method as claimed in  
10 claim 17, wherein the inorganic fine particles are formed as silica.

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19. The image forming method as claimed in claim 17, wherein the inorganic fine particles are applied with a sol-gel technique and are thereby formed as spherical shaped hydrophobic silica fine particles.

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20. The image forming method as claim in  
25 claim 17, wherein the developer contains further

inorganic fine particles having an average particle diameter which is smaller than the inorganic fine particles.

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21. The image forming method as claim in claim 17, wherein the developer is combined with a  
10 magnetic particle to function as a carrier.